

REMARKS

The Office Action of July 14, 2004 has been carefully reviewed and this response addresses the Examiner's concerns.

In the office action, claims 4-14 are objected to as being in improper form. Applicants respectfully note that the claims, as filed by Express Mail on July 14, 2003, number from 1 to 35 and do not contain the multiple dependencies referred to in the office action. From this statement (and the reference page and number lines used with the objection to the specification, which is discussed below), it appears that a copy of the European application content is being reviewed as opposed to the application filed in the US by Express Mail on July 14, 2003. For convenience, a copy of all documents filed on July 14, 2003 is attached to this response, and a copy of the claims, as filed, appears in the "Pending Claims" section above. As those claims being objected to are not the claims as filed, this objection is respectfully traversed.

Also in the office action, the specification has been objected to as containing an embedded hyperlink and/or other form of browser-executable code. Applicant herein amends the specification to delete the website reference. However, Applicant notes that the referenced page and line numbers in the amendment are those of the specification as filed by Express Mail on July 14, 2003 and do not correspond to the page and line numbers referenced in the office action.

Claims 1-3 are rejected under 35 U.S.C. §102 (e) as being anticipated by Yutani et al (U.S. Patent No. 5,439,980). This rejection is respectfully traversed.

As discussed in the present specification (see page 4, lines 5-12), Yutani relates to a method for degenerative iodine chain transfer polymerization, but in contrast to the present application, does not produce a block or gradient final (co) polymer, nor does it disclose the essential features of the present invention.

It is stated in the office action that in example 3, lines 40 to 45, of Yutani, it is described to polymerize in a first step the MMA and that at lines 46 to 55, a second step is described. However, this does not teach, suggest or disclose, the essential features of the present invention.

First of all, as opposed to the assertions in the office action, Yutani describes a one step process and not a two-step process. In example three, all reactants are added, then the atmosphere is pressurized with ethylene gas. The polymerization starts at 70°C, during which process MMA is added (continuously at a rate) depending on the consumption during polymerization. Clearly, the addition of MMA is not a separate step. This also follows from the description of Yutani at column 9, line 67, stating that a random copolymer chain is formed. In Yutani there is no intermediate polymer, and the resulting polymer is not a block or gradient copolymer.

According to the present invention, it was found that a very favorable degenerative iodine transfer polymerization process is obtained if in a first step an intermediate copolymer is produced comprising at least 50 mole% methacrylate monomers. There is nothing in the Yutani disclosure teaching or suggesting that such favorable process can be obtained when using at least 50 mole% methacrylate monomers. Example 3 in Yutani has low methacrylate content. In fact, it teaches away from using a high MMA content at column 2, line 51 to 57, which states that because commonly used radically polymerize monomers such as methacrylate have a very low reactivity, the homo-polymer of each monomer is produced and that it is difficult to polymerize the (MMA) monomer with the carbon radical of the iodide compound.

Further, the method according to Yutani uses ethylene, which is very unfavorable because it requires a high pressure autoclave. This is clearly not envisaged in the process of the present invention.

Further, Yutani does not describe the use of molecular iodine (I₂) or an iodine chain transfer agent. Instead, Yutani consistently uses perfluoropolyether polymer iodine, which is not an polyacrylate intermediate iodine atom containing polymer as described in the claims of the present invention. Such perfluoro polymers are absolutely unwanted for use in applications envisaged in the present application, in particular film forming or crosslinking compositions such as coating compositions, adhesives and printing ink formulations (see page 1, line 9 – 11, of the present specification).

Thus, for the reasons set forth herein, the present invention is novel over Yutani.

Thus, for the reasons set forth above, the Applicant respectfully requests that the Examiner reconsider the objection and rejection of the claims and find the application in condition for immediate allowance.

Respectfully submitted,



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